

INVESTIGATOR'S ANNUAL REPORT

National Park Service

All or some of the information provided may be available to the public

Reporting Year: 1997	Park: Shenandoah NP
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Permit#: SHEN1997AULM	
Park-assigned Study Id. #: unknown	
Project Title: Annual Report - National Plant Materials Center (N-199)	
Permit Start Date: Jan 01, 1998	Permit Expiration Date Jan 01, 1998
Study Start Date: Jan 01, 1992	Study End Date Jan 01, 2000
Study Status: Completed	
Activity Type: Other	
Subject/Discipline: Other	
Objectives: <p>The NPMC provides technical expertise in the collection, cleaning, seeding, growing, harvesting, and planting of native plant materials. The seed and plants produced will be used for revegetation of roadside construction sites, islands, and overlooks in the Shenandoah National Park along Skyline Drive. This cooperative effort was initiated in September 1992 and plant material will be shipped to the park through 2000. A minimum of two (2) grass, three (3) forb, five (5) shrub, and three (3) tree species will be supplied. Approximately 450lbs. of grass and forb seed, 12,500 wildflower transplants (plugs and quarts), and 7,000 tree and shrub seedlings will be produced. To date, 4,745 trees, shrubs, and woody vines, 1,064 plugs of grasses and wildflowers, and 79 lbs. of herbaceous and woody seed have been delivered to the park.</p>	
Findings and Status: <p>The majority of material delivered to the park in spring 1997 was used for planting the large slope at the park's north entrance. Trees and shrubs were planted throughout and wildflower plugs were placed at the foot of the slope.;In 1997, a lack of funding for the facilities revegetation project and mid-year Skyline Drive project review prompted cooperators to adjust the existing NPS-NPMC cooperative agreements. It was determined that the NPMC will produce and deliver to the park, 2,200 container trees and shrubs, 11,500 plugs and quarts of wildflowers, and 400 lbs. of seed for use on Skyline Drive. All transplants will be shipped to the park by spring 2000 and seed shipments will continue through 2000. The agreements will be terminated at that time, unless cooperators discuss alternative plans.;In preparation for the final years of the Shenandoah agreements, the NPMC is harvesting field-grown woody material for transplanting into containers, seed production fields are being maintained at the current size, and greenhouse plug production has been increased. The NPMC has 953 trees and shrubs available for spring 1998 delivery, along with 2,500 wildflower transplants and over 100 lbs. of seed.;During spring 1997 planting at the park, a new deer repellent was used on tree and shrub transplants. Nortech (St. Louis Park, MN) Tree Guard was applied to container and bareroot material prior to planting, and re-applied by park staff during the growing season. The material was easy to use, but did little to protect plants from browse damage.;To reduce the need for several transplantings in the greenhouse, a new technique for starting wild bergamot (<i>Monarda fistulosa</i>) seedlings was developed. Seeds were sown in larger 72-cell trays (1.5" x 1.5" x 2.0" deep cells), as opposed to the usual small 392-cell trays (0.5" x 0.5" x 1.0" deep cells), on a thin layer of germination mix over potting mix plus time-release fertilizer. Seedlings grown in the 72-cell trays were used for seed production field plantings.;The NPMC used a new field layout during rejuvenation of the pathrush (<i>Juncus tenuis</i>) seed production field in 1997. In an effort to reduce weeds as well as capture as many of the extremely tiny pathrush seeds as possible in the future,</p>	

weed barrier material was rolled over a newly prepared field and secured with staples. Divisions of pathrush from the old field were planted through small holes in the fabric.	
For this study, were one or more specimens collected and removed from the park but not destroyed during analyses? No	
Funding provided this reporting year by NPS: 0	Funding provided this reporting year by other sources: 0
Fill out the following ONLY IF the National Park Service supported this project in this reporting year by providing money to a university or college	
Full name of college or university: n/a	Annual funding provided by NPS to university or college this reporting year: 0